capable of preventing the release of harmful component emissions to atmosphere while once said components are mixed, comprising:

a mixing vessel for receiving said powder and liquid components of said bone cement, said vessel comprised of an outer wall having a top end and a bottom end, said outer wall defining a vessel interior, at least one of said top and bottom ends formed with a sealable spout therein which is in communication with the atmosphere and the other of said top and bottom ends formed as with an axially displaceable wall;

a vacuum source in communication with said vessel interior for maintaining a continuous vacuum therein;

means for introducing said liquid and powder components into said interior of said mixing vessel;

an agitator received within said vessel interior for mixing said bone cement components together; and

removable means for sealing said spout from communication with the atmosphere,

wherein said vessel is adapted for receiving and mixing said powder and liquid components within said interior under a continuous vacuum while atmospheric air is prevented from entering said vessel, thereby preventing harmful component emissions from escaping said vessel.--

--31. 26 An apparatus for feeding batches of a liquid and a powder component into an interior of a mixing vessel for preparation of a bone cement, said mixing vessel capable of preventing the release of harmful component emissions to atmosphere while said components are mixed, comprising:

a mixing vessel for receiving said powder and liquid components of said bone cement, said vessel comprised of an outer wall having a top end and a bottom end, said outer wall defining a vessel interior, at least one of said top and bottom ends formed with a sealable spout therein which is in communication with the atmosphere and the other of said top and bottom ends formed as an axially displaceable wall;

a vacuum source in communication with said vessel interior for maintaining a continuous vacuum therein;

means for introducing said liquid and powder components into said interior of said mixing vessel;

an agitator received within said vessel interior, said agitator comprised of a tubular rod and an agitator disk attached to said tubular rod, said tubular rod extending upwardly out of said interior through said spout and in communication with the atmosphere, said rod having an open first end that defines a mouth and an open second end that is encircled by said disk, said tubular rod axially displaceable within said vessel interior for mixing said bone cement components together; and